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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,311	03/21/2001	Jac-Yoel Kim	678-638 (P9799)	4839
28249	7590	09/08/2004	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			BRITT, CYNTHIA H	
			ART UNIT	PAPER NUMBER
			2133	
DATE MAILED: 09/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/814,311	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> Cynthia Britt	<b>Art Unit</b> 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 09 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/2/04 AND 6/2/04</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Claims 1-18 are presented for examination.

***Response to Amendment***

***Claim Rejections - 35 USC § 101***

1. The amendments to claims 1 and 7, mailed 07/21/04, obviate the previous 101 lack of patentable utility rejections as cited in the office action mailed 03/25/04. As such, claims 1-18 all have patentable utility and the prior 101 rejections are hereby withdrawn.

***Claim Rejections - 35 USC § 112***

2. The 112 2<sup>nd</sup> paragraph rejection of claim 17 put forth in the office action mailed 03/25/04 has been overcome by the amendment of claim 17 by the amendment mailed 06/18/04. As such, the previous rejection of claim 17 with respect to lack of antecedent basis is hereby withdrawn.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's Admitted Prior Art (APA) in view of Molnar et al., U.S. 5,691,922, and Sarkar et al., U.S. 6,671,851.

The rejections of claims 1-18 as put forth in the office action mailed 03/25/04 are maintained. Response to arguments put forth with respect to the aforementioned rejections will be dealt with below.

***Response to Arguments***

5. Applicant's arguments filed 06/18/04 have been fully considered but they are not persuasive.

The Applicant has argued that claims 1, 4, and 7 (as well as their corresponding dependent claims 2-3, 5-6, and 8-18) should be allowed over the current art of record because they fail to teach to the repeating of coded symbols  $t$  times, where  $t = N/R + 1$ . The APA discloses repeating the code symbols 32 times total, to make up one transmission slot (APA: Pg.2: 16-18; Pg.4: 15-17). In this case, the code symbols are of length 8, and the transmission slot is of length 256. Hence, the number of times the code symbols are repeated is 32. This is obviously a case that does not require a puncturing circuit, because the repeated code symbols fit into the transmission slot. However, it was demonstrated in the prior action that that when the APA is taken in view of Molnar, and Sarkar, then puncturing of repeated codewords to fit an allotted transmission slot is obvious. Merely repeating a codeword 32 times is no longer sufficient to guarantee

proper format of the transmission slot, when puncturing of the code symbols is involved. As such, Sarkar discloses such a system and method of repeating and puncturing predetermined code symbols in a set format (Col.9: 37-49). The repeating of the code symbols and the subsequent puncturing of said symbols to fit a transmission slot is therefore taught by the prior art of record. The APA teaches to a (8,3) encoding system that utilizes repeating technology, while Molnar teaches to the use of puncturing techniques and circuitry, allowing for a (7,3) encoding system, while Sarkar teaches to a system and method of repeating and puncturing predetermined code symbols in a set format. Therefore, calling for a specified repeat sequence of  $t = N/R + 1$ , followed by puncturing A times, where  $A = rt - N$  is merely a mathematical expression of the disclosed process and system of the combined prior art of record, and as such, the prior rejection of claims 1-18 are maintained.


### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Britt whose telephone number is 703-308-2391. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2133

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cynthia Britt  
Examiner AU 2133  
8/2/04

  
ALBERT DECADY  
SUPERVISORY PATENT EXAMINER  
ELECTRONIC BUSINESS CENTER 2100